Exhibit 4

Oyster Reef Implementation Plan

1.0 INTRODUCTION

To compensate for the interim loss of ecological services from natural oyster reef habitat, resulting from releases of hazardous substances at or from the Alcoa Point Comfort/Lavaca Bay Site and the loss of reef habitat due to remedial actions in Lavaca Bay, Alcoa shall construct a minimum of 10.9 acres of oyster reef in Lavaca Bay in the approximate location depicted on Exhibit 1 to the Consent Decree. The constructed reef will be ecologically similar to nearby reefs and will be constructed pursuant to a plan designed to maximize habitat value to provide ecological services important for the continued success of biota in Lavaca Bay. It is anticipated that the ecological services provided by the constructed reef will benefit a wide range of biological resources, including finfish, shrimp, crabs, mussels, oysters and many species of reef dwelling invertebrates.

An area in the southeast portion of Lavaca Bay has been selected as the site for reef construction because this location is within the same bay system and provides an environment suitable for oyster reef growth. The selected construction site is near the pass between Keller Bay and lower Lavaca Bay, adjacent to natural reefs and scattered oyster clusters.

The Trustees have determined that if the constructed reef meets the construction and performance criteria outlined in this plan, there is reasonable assurance that the ecological services needed to offset service losses will be provided over time.

The performance criteria define short-term milestones that, if met, will provide reasonable assurance of project success in the long term. Monitoring provides information necessary to determine whether the project is trending toward these milestones or whether corrective action may be appropriate.

2.0 PROJECT IMPLEMENTATION

2.1 Construction Criteria

Alcoa shall implement the preferred alternative described in the Final Ecological DARP in accordance with the following construction criteria:

a. Conduct a detailed bathymetric survey prior to construction.

b. Create a minimum of 10.9 acres of oyster reef by constructing a permanent reef base from rock, shell, or other appropriate material.

c. Place a layer of geotextile filter fabric under the material used for the core of the reef in areas where soft sediments are found.

d. The reef will consist of parallel segments that will be constructed perpendicular or diagonal to the tidal currents.

e. After settling, the top of the reef base shall be on average 12 inches higher than the surrounding bay bottom, with no spot less than 6 inches, to prevent burial by natural sedimentation.

f. Construct the reef with materials that will provide appropriate attachment surfaces for oysters and other sessile mollusks, *i.e.* limestone, whole oyster shell, clean processed and graded crushed concrete, North Carolina marl, or any other material approved by the Trustees.

g. Construction of the reef will commence at such time as to allow the reef to be completed in the March through May time frame, so that clean substrate is available during the spawning peak in Lavaca Bay (June).

h. After construction has been completed, place a permanent elevation marker on the reef to mark +6 feet NGVD.

2.2 Oyster Reef Restoration Work Plan

Alcoa shall develop an Oyster Reef Restoration Work Plan for its internal use. The Work Plan will be provided to the Lead Administrative Trustee for comment by the Trustees. The Work Plan will be used during contractor selection and to coordinate construction activities. The construction schedule may be provided to the Lead Administrative Trustee separately from the remainder of the Work Plan. The Work Plan will contain the following information:

a. Site Description:

   i. Hydrology and chemical characteristics of the site
   ii. General description of the bay bottom at the site
   iii. General description of fauna utilizing the site

b. A site location map and detailed plan view showing reef configuration and orientation.

c. Construction requirements, including reef construction materials and cross-sectional engineering drawings of the reef base and finished reef and the method of determining how bay bottom elevation will be documented.

d. Construction schedule showing the chronological relationship between construction tasks. The actual start and finish date will be determined by environmental conditions.

e. Copies of all permits or other authorizations necessary to carry out this Implementation Plan.

The Trustees have previously reviewed the draft Work Plan submitted on April 7, 2003 and found no material inconsistencies with the construction criteria in this Oyster Reef Implementation Plan. The Trustees will also be provided the opportunity to consider Alcoa's final Work Plan. Within 14 days after receipt of the final Work Plan, the Lead Administrative Trustee will provide written notice to Alcoa whether or not the Trustees find that there are material inconsistencies between the Work Plan and the construction criteria in this Oyster Reef Implementation Plan. If any material inconsistencies are identified, or if the Trustees need additional information about details included in the Work Plan to ensure compliance with the construction criteria, the Lead Administrative Trustee will arrange a meeting between Alcoa and

the Trustees to discuss the Work Plan. The Trustees will provide a written statement of their position with respect to any material inconsistencies within 14 days of the meeting.

2.3 Construction Certification

a. Alcoa shall construct the oyster reef in accordance with the specifications identified in the Oyster Reef Work Plan. Within 21 days after completion of construction, Alcoa will provide notice to the Lead Administrative Trustee that Alcoa has completed construction in accordance with specifications that are consistent with the Oyster Reef Implementation Plan and the Oyster Reef Work Plan.

b. Alcoa shall conduct its first post-construction monitoring event at any time during the first October-December time period after the oyster reef has settled by 70% ("70% Settling Date"). Alcoa will undertake a detailed geotechnical assessment based on best professional geotechnical testing and engineering practices to determine the 70% Settling Date. The 70% Settling Date will be identified in the Oyster Reef Work Plan or provided separately to the Lead Administrative Trustee.

c. During the first post-construction monitoring event, a baseline survey will be conducted by a licensed surveyor. The survey will be conducted to determine if areal size and surface elevations specified in this plan and the Oyster Reef Work Plan have been achieved. When the baseline survey and monitoring event are complete, Alcoa will prepare a Post-Construction Report. The report will present the results of the monitoring event and survey, including;

    i. Summary of construction activities
    ii. Baseline survey showing reef area, configuration, elevation
    iii. Estimated depths of overlying water
    iv. Information to establish that the construction criteria have been met.

d. Within 60 days after the completion of the first post-construction monitoring event, Alcoa will provide its post-construction report to the Lead Administrative Trustee for Trustee evaluation. Within 30 days after receiving the report, the Lead Administrative Trustee may establish a date for a construction inspection by the Trustees, as authorized by Paragraph 46 of the Consent Decree.

e. The Trustees shall evaluate the report and the results of any inspection they may undertake, and if the Trustees agree that the construction criteria have been met, the Lead Administrative Trustee shall issue a written notice on behalf of all Trustees certifying completion of construction of the Oyster Reef Restoration Project in accordance with Paragraph 47 of the Consent Decree ("Certification of Completion of Oyster Reef Construction") within the later of 60 days after receipt of the Post-Construction Report or any joint inspection of the Oyster Reef Project Site requested under Paragraph 46 of the Consent Decree. If the Trustees do not agree that the construction criteria have been met, the Lead Administrative Trustee will arrange a meeting between the Trustees and Alcoa to discuss

whether the construction criteria have been met and whether any additional steps are needed to meet the construction criteria.

f. Alcoa shall establish that the oyster reef meets the construction criteria required to obtain a Certification of Completion of Construction by July 1, 2007.

3.0 PERFORMANCE MONITORING

Performance criteria define short-term milestones that, if met, will provide reasonable assurance of project success in the long term. Monitoring provides information necessary to determine whether the project is trending toward these milestones or whether corrective action may be appropriate.

3.1 Performance Criteria

Performance criteria for the Oyster Reef Restoration Project are:

a. The presence of a suitable solid reef base that has a surface elevation that is on average 12 inches higher than the surrounding bay bottom. Due to the slight unevenness of the bay bottom, and the shape of the reef construction material, reef surface elevation will be an arithmetic average of 12 inches above the surrounding bay bottom, but no individual spot will be less than 6 inches above bay bottom.

b. The reef may consist of multiple reef segments constructed at the same site, but the combined areal size of the segments, not counting open water between segments, will be 10.9 acres.

c. Evidence of sessile mollusk colonization on the constructed reef within 30 months post-construction.

Compliance with the design-based performance criteria (i.e., items a and b above) shall be documented during each monitoring event that will occur during the October-December time period approximately 18 and 30 months after construction has been completed. Compliance with the ecological performance criterion (i.e. item c, above) may be determined during any of the scheduled monitoring events or other inspections approved by the Lead Administrative Trustee.

3.2 Monitoring Events

Reef monitoring will be conducted at scheduled intervals following reef construction. The schedule and objectives of post-construction monitoring events are shown in Table 3.2.1.

Table 3.2.1 Post-construction Monitoring Events		
Monitoring Schedule	Characteristics to Evaluate	Methods
October-December after 70% Settling Date	Evidence of colonization of sessile mollusks	Photo documentation
	Average reef surface elevation and areal extent	Baseline survey by licensed surveyor
October-December approximately 18 months following certification of completion of construction; Report due February 28th following 18-month monitoring	Evidence of colonization of sessile mollusks (only if not documented during prior monitoring event)	Photo documentation
	Average reef surface elevation	Confirmation survey by licensed surveyor
October-December approximately 30 months following certification of completion of construction; Report due February 28th following 30-month monitoring	Evidence of colonization of sessile mollusks (only if not documented during prior monitoring event)	Photo documentation

4.0 CORRECTIVE ACTIONS

4.1 Minor Corrective Actions

No routine maintenance of the reef is expected or required. Therefore, minor corrective actions are not anticipated.

4.2 Major Corrective Actions

Alcoa will obtain Trustee approval from the Lead Administrative Trustee prior to performing any major corrective action. Major corrective actions may include:

a. Mobilization of heavy equipment for reworking existing base material to provide gaps, passes, or deflectors designed to improve circulation and/or reduce sedimentation.

b. Reconstruction or augmentation of reef base to address excessive subsidence or settlement.

c. Mechanical manipulation of the upper reef surface to increase surface attachment area if the spat set is not successful and is negatively colonized by algae.

Major corrective actions will not include construction of a new reef at a different location; rather major corrective actions that may be required are limited to corrections/ amendments/

modifications of the existing reef to improve circulation, reduce sedimentation, and/or reduce fouling, as described herein.

4.3 Triggers for Consideration of Major Corrective Actions

The need for major corrective action may be triggered by excessive subsidence or settling of the reef base as measured by the baseline survey or the confirmation survey. Major corrective action may be required by the Trustees if average reef surface elevation measured during either survey indicates the reef does not meet elevation or areal size specified by the design-based performance criteria.

The need for major corrective action may also be required if no evidence of colonization of sessile mollusks is detected in any scheduled post-construction monitoring event. The Trustees have the option of requiring one additional monitoring event if the ecological performance criterion has not been met by the time of the 30 Month Post-construction Monitoring Event. Under no circumstances will monitoring continue for more than four (4) years following Certification of Completion of Construction.

4.4 Limitations on Major Corrective Actions

The performance of one or more major corrective actions is subject to the activity-based limitations described herein. After Alcoa has submitted a post-construction report establishing that construction has been completed in accordance with the construction criteria, major corrective actions shall be limited to the following described activities and in no event shall Alcoa be required to perform major corrective actions, which either individually or in the aggregate, exceed the applicable limitation for each such activity as set forth in this Section 4.4:

a. Mobilization of heavy equipment for reworking existing base material to improve circulation and/or reduce sedimentation is limited to one event.

b. Reconstruction or augmentation of reef base to address excessive subsidence or settling is limited to one event.

c. Mechanical manipulation of the upper reef surface to increase surface attachment area if the spat set is not successful and attachment surfaces are negatively colonized by algae with a three-event limit.

5.0 RECORD KEEPING AND REPORTING

The post-construction report shall be prepared and submitted to the Lead Administrative Trustee as required in Paragraph 2.2 and Table 3.2.1 above.

6.0 FINAL CERTIFICATION

When it determines that the performance criteria specified in Paragraph 3.1 above have been met, Alcoa will provide a written basis for its determination to the Lead Administrative Trustee. The Trustees will review the written explanation, and if they agree that the criteria have been met, the Lead Administrative Trustee will certify that Alcoa has completed the Oyster Reef Restoration Project in accordance with Paragraph 50 of the Consent Decree. If the Trustees do

not agree that the criteria have been met, the Lead Administrative Trustee will arrange a meeting between Alcoa and the Trustees to discuss whether additional steps need to be taken to meet the criteria.